

Abstract:

The invention relates to a tissue replacement structure comprising

(a) a preformed three-dimensional tissue which can be produced by obtaining cells from a human or animal organism and culturing them in a stationary fashion as a suspension culture in cell culture vessels with hydrophobic surface and tapering bottom until a cell aggregate is formed which has differentiated cells embedded therein and has an outer region wherein cells capable of proliferation and migration are present;

(b) (i) an autologous cell suspension which can be produced from endogenous cells, with endogenous serum being added, with no addition of growth-promoting compounds, (ii) implants or support materials and/or (iii) growth factors;

and/or

(c) can be obtained by exposure of the tissue according to (a) to electromagnetic fields, mechanical stimulation and/or ultrasound.